



GEH-01-060
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Cofer
4-28-03

Applicant: Charles L. Zahm, et al.

Serial No.: 09/585,192

Filed: June 1, 2000

For: METHODS AND APPARATUS FOR MEASURING
NAVIGATIONAL PARAMETERS OF A LOCOMOTIVE

Art Unit: 3661

Examiner: Brian J. Broadhead

AMENDMENT

Commissioner for Patents
Box NON-FEE AMENDMENT
Washington, D.C. 20231

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APR 23 2003

GROUP 3600

Sir:

In response to the Office Action dated January 15, 2003, please amend the above-identified patent application as follows:

IN THE CLAIMS

1. (once amended) A method for determining at least one of motion and location parameters of a railroad locomotive, with the locomotive oriented with either end thereof in the lead in the direction of travel of the locomotive, said method comprising the steps of:

providing at least two satellite signal receivers on the locomotive at spaced locations along the length of the locomotive;

determining a set of phase differences between satellite reference signals received by satellite receivers; and

determining an accurate heading of the locomotive using the set of phase differences between the satellite reference signals, wherein the heading represents both the direction of travel of the locomotive and which end of the locomotive is in the lead in the direction of travel of the locomotive.